



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

PRELIMINARY ISSUE

D3512-3

Job Sheet 181237



POSITIVE RECALL

EFFECTIVE 2 AUTH 21
AUG 03 2018
RELEASED 9 DATE 18-09-11
Priority: Medium
@ K.D

Part No: D3512-3

Job Qty: 20 ea

Part Name: Spacer



Part Weight: 0 lbs

Status: Scheduled

Job Created: 7/24/18

Job Tracking No:

Due Date: 8/31/18

Created By: Marie Lajeunesse

Type: Stock

Description:

MAKE as D3512 Rev D SMO 18-09-11
Note: DWG D3512 REV E12 IPP REV:A 13.07.19 NEW ISSUE DD VERF:JLM IPP REV:B 13.12.11 ECN13-619/
REV.D DWG DD VERF:JLM IPP REV:C 18.03.12 DWG REV.E12 DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	20 Ea	8/31/18	8/31/18	0.00	0.00	Start Up Waterjet		<i>SR 8/10/18</i>
100	Waterjet	20 pcs	8/31/18	8/31/18	0.00	1.36	Waterjet1		<i>SC 9/10/18</i>
110	QC	20 pcs	8/31/18	8/31/18	0.00	0.00	QC2 Waterjet-2		<i>SC 8/10/18</i>
120	QC	20 pcs	8/31/18	8/31/18	0.00	0.00	QC8-2		<i>38 9-89</i>
130	Brake NC	20 pcs	8/31/18	8/31/18	0.24	0.45	Brake NC 1		<i>9-89</i>
140	QC	20 pcs	8/31/18	8/31/18	0.00	0.00	QC5		<i>9</i>
150	Packaging	20 pcs	8/31/18	8/31/18	0.00	0.00	Packaging3		<i>9-89</i>
160	QC21-SA	20 Ea	8/31/18	8/31/18	0.00	0.00	QC21		<i>DAS 21 9-89</i>

Part Op 100 - 1-Cut as per Dwg D3512
Descriptions: 150 - LOCATION: WA001

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304S18GA	304/316 .050 Sheet	1.8860 sf (.0943 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M304S18GA	2	289	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐		Against DEPARTMENT/PROCESS Cross tube ☐ Small Fab ☐ Finishing ☐		Water Jet ☐ Prod. Eng. Coord. ☐ Engineering ☐ Quality ☐ Other ☐	
Date : _____		Step #: _____							
Description Work Order Deviation									
Root Cause									
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Grain	☐	Wrong	☐
Design	☐	Operator	☐	Bending	☐	Weld	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Conce	☐	Wrong Stock Pulled	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Out of Sequence	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Off-set	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Mislabeled	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Fit/Function	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Misaligned/off center	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐		☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐		☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐		☐		☐		☐
Misidentified	☐	Past Due	☐	OTHER :	☐		☐		☐

Container No: S096805
 Part: D3512-3
 Job No: 181237
 Serial No/Batch: S096805
 Revision: E12
 Inspector:
 Exp Date:
 Instructions: Various STC's

Date: 07/26/18

DART Aerospace Ltd.
 1270 Aberdeen Street
 Hamilton, ON K6A 1K7
 TEL: 1 513 632-8200
 Email: sales@dartaero.com
 www.dartaerospace.com

Completed By

Supervisor Verification

Coordinator
Initial

DQA: _____ Date: _____



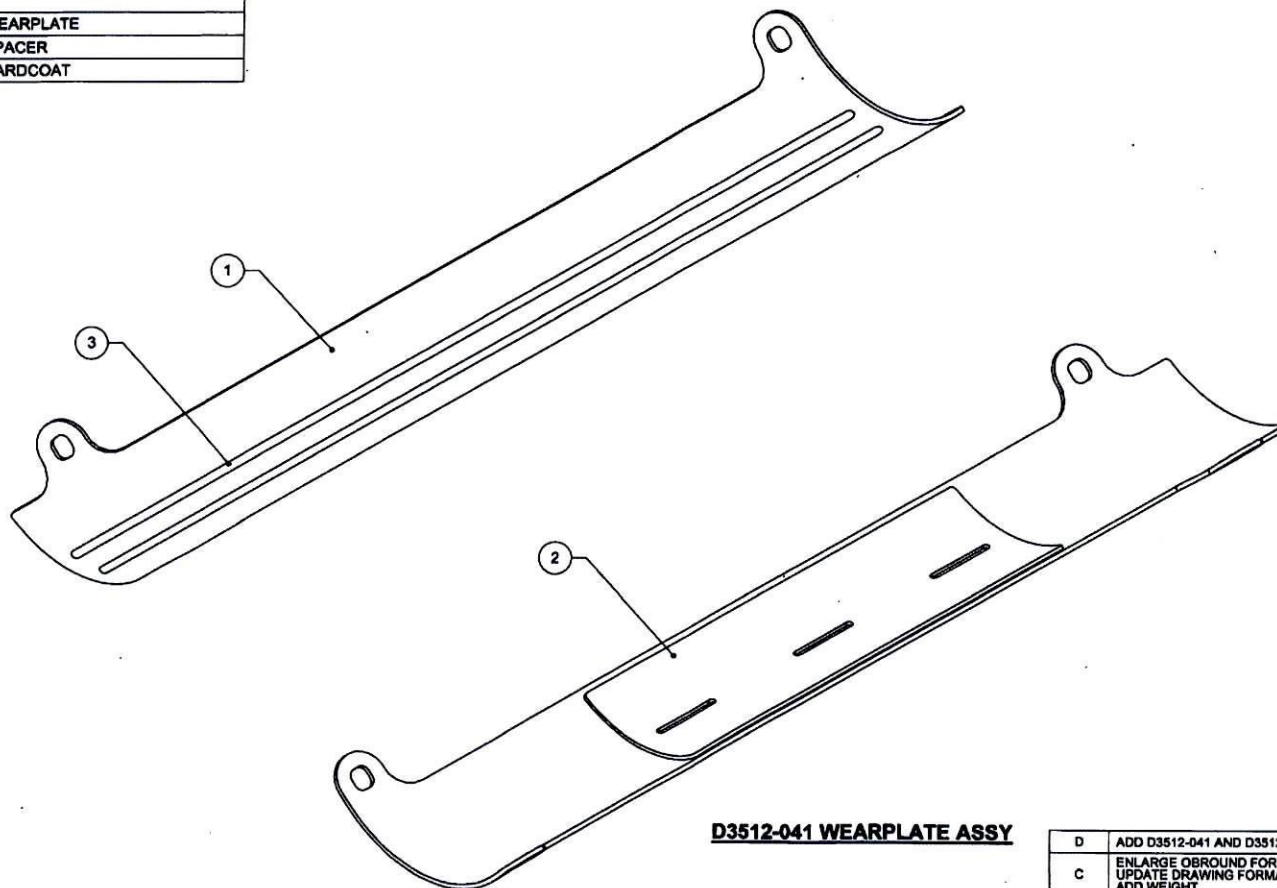
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☒

Work Order: <u>181237</u> Part No: <u>23572-3</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐							
Date: <u>18.09.11</u>		Step #: <u>100</u>		QTY Effective: <u>20</u>			MRB (QSI042) Approval <u>DAS</u> <u>9</u> <u>9-89</u> <u>18-09-11</u>				
Description Work Order Deviation				Disposition				Completed By			
* parts where made with Rev. D DXF. and Not Rev. E DXF Part are good to Ship at Rev. D as per URF18-745				Make Inspect part to Rev. D				Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval <u>DAS</u> <u>9</u> <u>9-89</u> <u>18.09.11</u>			
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ Manufacturing Process ☐ Misidentified ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Mislabeled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐					OTHER : _____		

ITEM	QTY -041	P/N	DESCRIPTION
	X	D3512-041	WEARPLATE ASSY
1	1	D3512-1	WEARPLATE
2	1	D3512-3	SPACER
3	A/R	2058B	HARDCOAT



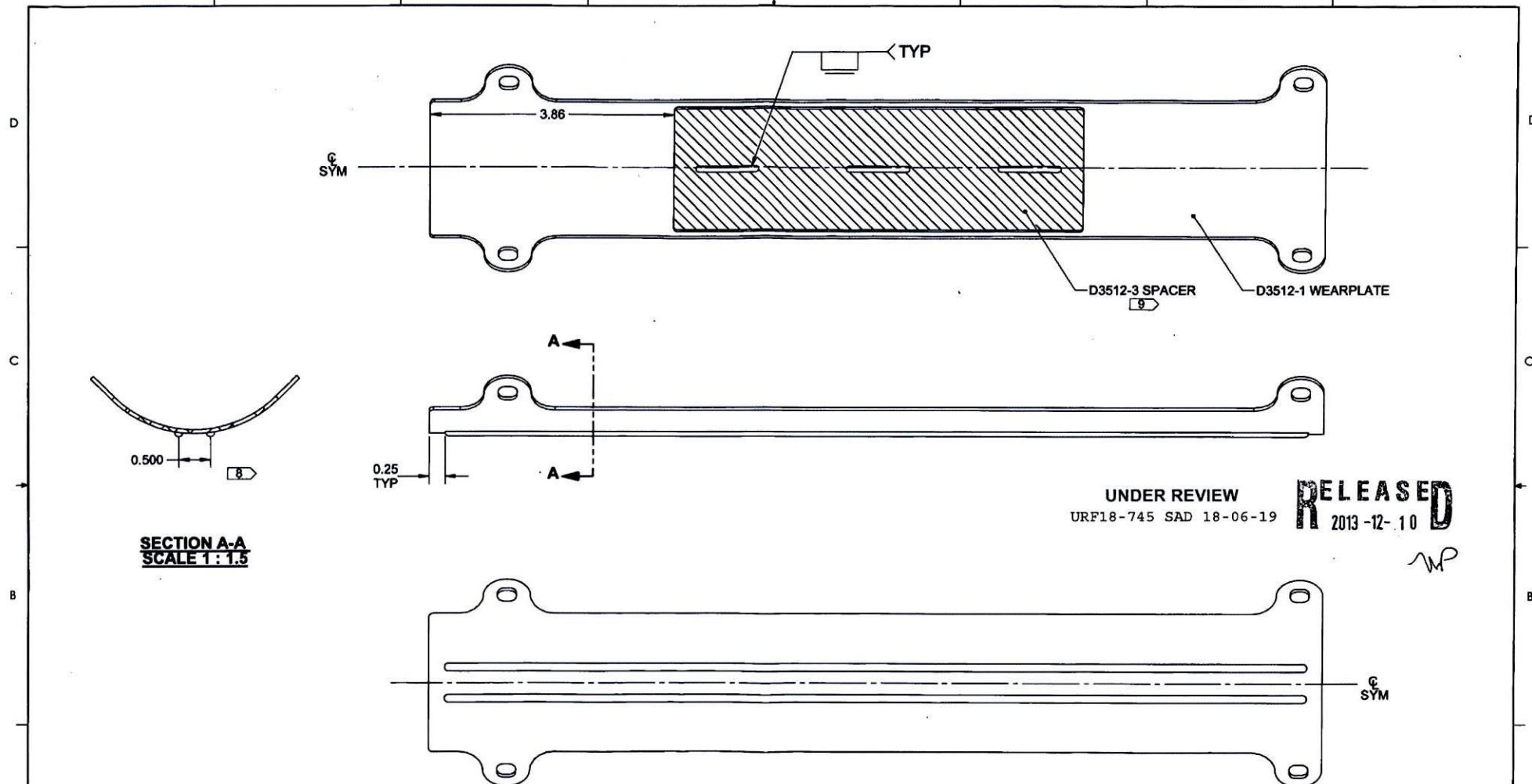
D3512-041 WEARPLATE ASSY

RELEASED
2013-12-10

UNDER REVIEW
URF18-745 SAD 18-06-19

REV.	DESCRIPTION	BY	DATE
D	ADD D3512-041 AND D3512-3	DW	13.08.28
C	ENLARGE OBOUND FOR EASIER ASSEMBLY UPDATE DRAWING FORMAT ADD WEIGHT	PH	07.10.05
B	CHANGE MATERIAL TO STAINLESS STEEL	PH	06.10.27
A	NEW ISSUE	PH	06.04.21
DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DW		
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3512	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSY	NTS
DATE	13.08.28	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1



SECTION A-A
SCALE 1:1.5

UNDER REVIEW
URF18-745 SAD 18-06-19

RELEASED
2013-12-10

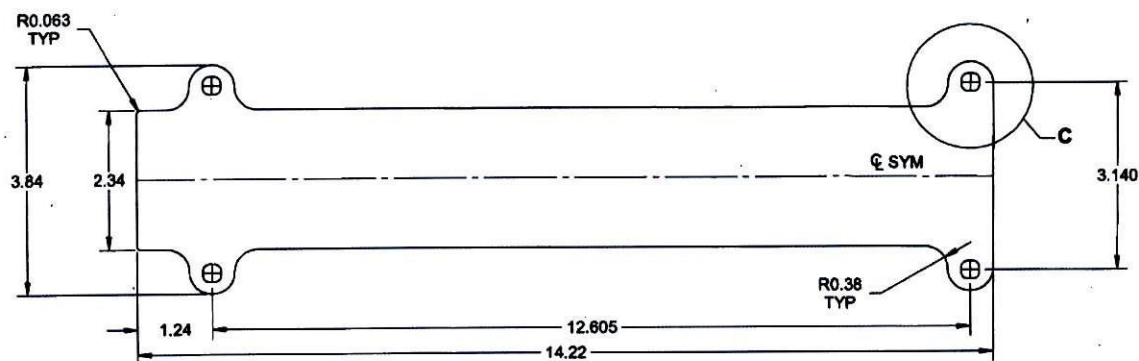
D3512-041 WEARPLATE ASSY

NOTES:

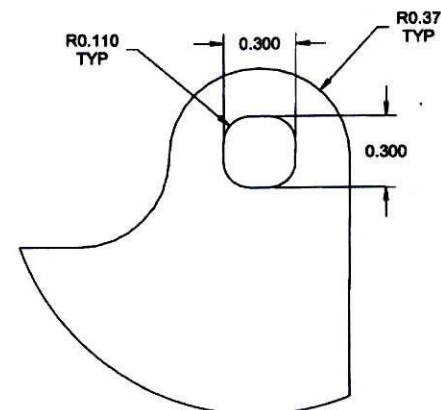
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3512-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.94 lbs
- 8) WELDING: PER QSI 004. 2059B HARDCOAT WELD 0.063 TO 0.125 THK
- 9) COAT HATCHED (CONCAVE) SURFACE WITH PLUS ONE ROCKGUARD 4714, 0.020-0.040 THK

DESIGN	DW	DART AEROSPACE LTD	
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3512	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSY	NTS
DATE	13.08.28	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1



D3512-1F



DETAIL C
SCALE 2X

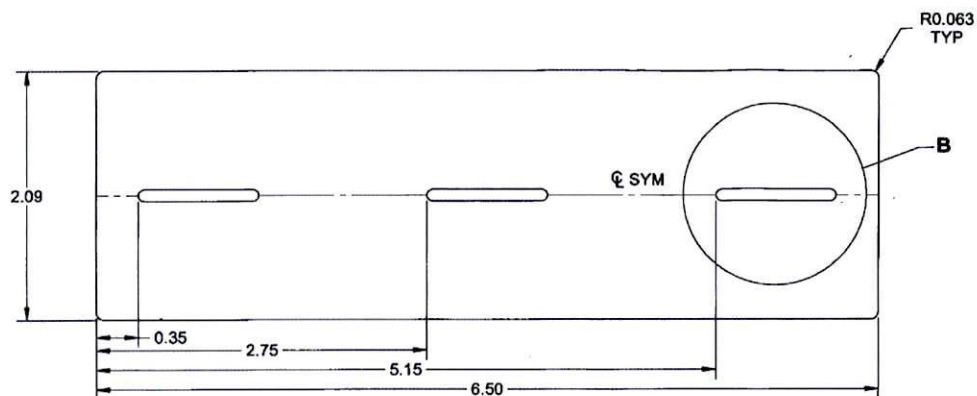
UNDER REVIEW
URF18-745 SAD 18-06-19

RELEASED
2013-12-10
WP

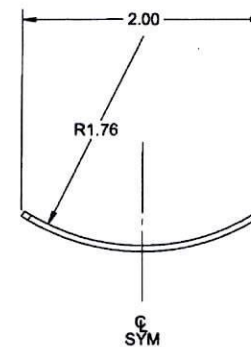
NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL PER MIL-S-5050 OR AMS 5513 OR 5524 OR ASTM A240
18 GAUGE 0.063 THICK (REF DART SPEC. MS304S16GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.63 lbs

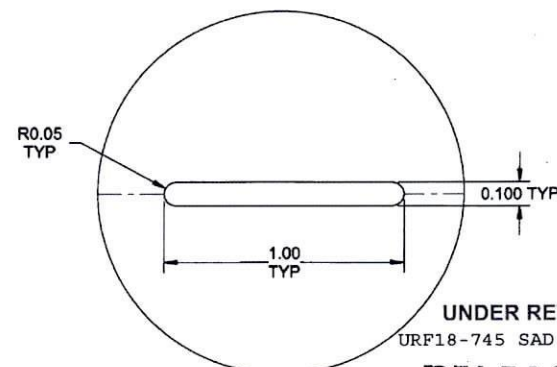
DESIGN	DW	DART AEROSPACE LTD	
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AW	DRAWING NO.	REV. D
MFG. APPR.	AW	D3512	SHEET 3 OF 4
APPROVED	AW	TITLE	SCALE
DE APPR.	AW	WEARPLATE ASSY	NTS
DATE	13.08.28	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	



D3512-3F FLAT PATTERN



**D3512-3 SPACER
MAKE FROM D3512-3F**



**DETAIL B
SCALE 2X**

UNDER REVIEW
URF18-745 SAD 18-06-19

RELEASED
2013-12-10

- NOTES:**
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240 18 GAUGE 0.050 THICK (REF DART SPEC. MS304S18GA)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.19 lbs

DESIGN	DW	DART AEROSPACE LTD	
DRAWN	DW	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3512	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE ASSY	NTS
DATE		13.08.28	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.